

【NAME OF THE DOCUMENT】 ABSTRACT

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【SUBJECT】 To provide a low dielectric constant film having a low dielectric constant, which also has mostly excellent resistance against chemicals such as acids and alkalis, and excellent moisture resistance, so that a dielectric constant of the film is increased little by absorbing moisture, a low dielectric constant interlayer insulating film for a semiconductor device, semiconductor integrated circuits having a fast response and/or a good resistance (chemical resistance) against the generations of cracks or the like, and a method for producing the above-described a low dielectric constant film.

【SOLVING MEANS】 A composition comprising a siloxane resin, a silicon compound substantially consisting of silicon, carbon and hydrogen, wherein the number ratio of carbon to silicon atoms forming an -X- bond (wherein X is $(C)_m$ (where m is an integer in the range of from 1 to 3), or a substituted or unsubstituted aromatic group with 9 or less carbon atoms) in the main chain of one molecule is in the range of from 2:1 to 12:1, and a solvent, is subjected to a heat treatment to form a low dielectric constant film. Accordingly, a low dielectric constant film having excellent resistance against chemicals and excellent moisture resistance is provided. A semiconductor integrated circuit having a fast response can be produced by using the film.

【SELECTED DRAWING】 NONE